AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1-40. (canceled).

41. (previously presented): A computer system suitable for processing analyte data, the computer system comprising:

a sensor data module configured to receive sensor data, the sensor data comprising a data stream comprising a plurality of time spaced sensor data points from a substantially continuous analyte sensor;

a processor module configured to determine a rate of change of the data stream; and

a reference input module configured to receive reference data from a reference analyte monitor, the reference data comprising at least one reference data point,

wherein the reference input module is configured to reject a reference data point obtained when the rate of change of the data stream is above a threshold.

42. (previously presented): A computer system suitable for processing analyte data, the computer system comprising:

a sensor data module configured to receive sensor data, the sensor data comprising a data stream comprising a plurality of time spaced sensor data points from a substantially continuous analyte sensor;

a processor module configured to determine a rate of change of the data stream;

a reference input module configured to receive reference data from a reference analyte monitor, the reference data comprising at least one reference data point; and

a data matching module configured to match a reference data point to a sensor data point to form a matched data pair, wherein the reference data point and the sensor data point are obtained at substantially corresponding times, and wherein the rate of change of the data stream is below a threshold at the time the sensor data point is obtained.

43. (previously presented): A computer system suitable for processing analyte data, the computer system comprising:

a sensor data module configured to receive sensor data, the sensor data comprising a data stream comprising a plurality of time spaced sensor data points from a substantially continuous analyte sensor;

a processor module configured to determine a rate of change of the data stream;

a reference input module configured to receive reference data from a reference analyte monitor, the reference data comprising at least one reference data point; and

a calibration module configured to form calibration information based at least in part on at least one reference data point and at least one sensor data point, wherein the reference data point and the sensor data point are obtained at substantially corresponding times, and wherein the rate of change of the data stream is below a threshold at the time the sensor data point is obtained.

44. (previously presented): A computer system suitable for processing analyte data, the computer system comprising:

a sensor data module configured to receive sensor data, the sensor data comprising a data stream comprising a plurality of time spaced sensor data points from a substantially continuous analyte sensor;

a processor module configured to determine a rate of change of the data stream;

a reference input module configured to receive reference data from a reference analyte monitor, the reference data comprising at least one reference data point; and

a conversion function module configured to create a conversion function based at least in part on at least one sensor data point, wherein the sensor data point is obtained when the rate of change of the data stream is below a threshold, and wherein the conversion function is configured to convert the sensor data point into a calibrated data point.

45. (previously presented): A computer system suitable for processing analyte data, the computer system comprising:

a sensor data module configured to receive sensor data, the sensor data comprising a data stream comprising a plurality of time spaced sensor data points from a substantially continuous analyte sensor;

a processor module configured to determine a rate of change of the data stream;

a reference input module configured to receive reference data from a reference analyte monitor, the reference data comprising at least one reference data point; and

a sensor data transformation module configured to convert at least one sensor data point into a calibrated data point, wherein the rate of change of the data stream at the time at which the sensor data point is obtained is below a threshold.

46. (previously presented): A computer system suitable for processing analyte data, the computer system comprising:

a sensor data module configured to receive sensor data, the sensor data comprising a data stream comprising a plurality of time spaced sensor data points from a substantially continuous analyte sensor;

a processor module configured to determine a rate of change of the data stream;

a reference input module configured to receive reference data from a reference analyte monitor, the reference data comprising at least one reference data point;

a calibration module configured to form a calibration set based at least in part on at least one matched data pair, the matched data pair comprising a reference data point and a sensor data point, wherein the reference data point and the sensor data point are obtained at substantially corresponding times; and

a calibration evaluation module configured to evaluate the matched pair, wherein the calibration evaluation module is configured to prevent the matched data pair from influencing

the calibration set if the rate of change of the data stream at the time the sensor data point is obtained is above a threshold.

47. (previously presented): A computer system suitable for processing analyte data, the computer system comprising:

a sensor data module configured to receive sensor data, the sensor data comprising a data stream comprising a plurality of time spaced sensor data points from a substantially continuous analyte sensor;

a processor module configured to determine a rate of change of the data stream;

a reference input module configured to receive reference data from a reference analyte monitor, the reference data comprising at least one reference data point; and

a clinical module configured to compare a first reference data point to a second reference data point to determine whether the first reference data point is clinically acceptable,

wherein the second reference data point is obtained prior to obtaining the first reference data point, and

wherein the first reference data point is determined to be clinically acceptable if the difference between the first reference data point and the second reference data point is below a threshold.

48. (previously presented): A computer system suitable for processing analyte data, the computer system comprising:

a sensor data module configured to receive sensor data, the sensor data comprising a data stream comprising a plurality of time spaced sensor data points from a substantially continuous analyte sensor;

a processor module configured to determine a rate of change of the data stream;

a reference input module configured to receive reference data from a reference analyte monitor, the reference data comprising at least one reference data point; and

a clinical module configured to compare a first sensor data point to a second sensor data point to determine whether the first sensor data point is clinically acceptable,

wherein the second sensor data point is obtained prior to obtaining the first sensor data point, and

wherein the first sensor data point is determined to be clinically acceptable if the difference between the first sensor data point and the second sensor data point is below a threshold.

49. (previously presented): A computer system suitable for processing analyte data, the computer system comprising:

a sensor data module configured to receive sensor data, the sensor data comprising a data stream comprising a plurality of time spaced sensor data points from a substantially continuous analyte sensor;

a processor module configured to determine a rate of change of the data stream

a reference input module configured to receive reference data from a reference analyte monitor, the reference data comprising at least one reference data point; and

a stability module configured to determine whether the sensor data is stable, wherein the sensor data is determined to be stable if the rate of change of the data stream is below a threshold at the time the sensor data is obtained.

50. (previously presented): The computer system of claim 49, wherein the analyte comprises glucose, wherein the data stream comprises measurements indicative of in vivo glucose concentration, and wherein the threshold is set at a predetermined level.

51. (previously presented): The computer system of claim 49, wherein the analyte comprises glucose, wherein the data stream comprises measurements indicative of in vivo glucose concentration, and wherein the threshold is 0.25 mg/dL/min.

52. (previously presented): The computer system of claim 49, wherein the analyte comprises glucose, wherein the data stream comprises measurements indicative of in vivo glucose concentration, and wherein the threshold is 0.5 mg/dL/min.

53. (previously presented): The computer system of claim 49, wherein the analyte comprises glucose, wherein the data stream comprises measurements indicative of in vivo glucose concentration, and wherein the threshold is greater than 0.5 mg/dL/min.

54. (previously presented): A computer system suitable for processing analyte data, the computer system comprising:

a sensor data module configured to receive sensor data, the sensor data comprising a data stream comprising a plurality of time spaced sensor data points from a substantially continuous analyte sensor;

a processor module configured to determine a rate of change of the data stream;

a reference input module configured to receive reference data from a reference analyte monitor, the reference data comprising at least one reference data point; and

a user interface, wherein the user interface is configured to request additional reference data when the rate of change of the data stream is above a threshold.

55. (previously presented): A device for monitoring glucose concentration in a biological sample of a host, the device comprising:

a substantially continuous glucose sensor that produces a data stream indicative of a glucose concentration in a host, the data stream comprising a plurality of time spaced sensor data points;

an integrated receiver that receives the data stream from the substantially continuous glucose sensor, wherein the integrated receiver comprises:

a single point glucose monitor configured to receive a biological sample from the host and to measure the concentration of glucose in the sample, the measured glucose concentration comprising a reference data point;

a processor; and a computer readable memory comprising:

instructions configured to cause the processor to process the data stream received from the continuous glucose sensor;

instructions configured to cause the processor to determine a rate of change of the data stream from the substantially continuous analyte sensor; and

instructions configured to cause the processor to calibrate the data stream using the glucose concentration measured by the single point glucose monitor.

56. (previously presented): The device of claim 55, wherein the reference input module is configured to reject a reference data point obtained when the rate of change of the data stream is above a threshold.

57. (previously presented): The device of claim 55, further comprising

a data matching module configured to match a reference data point to a sensor data point to form a matched data pair,

wherein the reference data point and the sensor data point are obtained at substantially corresponding times, and wherein the rate of change of the data stream is below a threshold at the time the sensor data point is obtained.

58. (previously presented): The device of claim 55, further comprising

a calibration module configured to form calibration information based at least in part on at least one reference data point and at least one sensor data point,

wherein the reference data point and the sensor data point are obtained at substantially corresponding times, and wherein the rate of change of the data stream is below a threshold at the time the sensor data point is obtained.

59. (previously presented): The device of claim 55, further comprising

a conversion function module configured to create a conversion function based at least in part on at least one sensor data point,

wherein the sensor data point is obtained when the rate of change of the data stream is below a threshold, and wherein the conversion function is configured to convert the sensor data point into a calibrated data point.

60. (previously presented): The device of claim 55, further comprising

a sensor data transformation module configured to convert at least one sensor data point into a calibrated data point, wherein the rate of change of the data stream at the time at which the sensor data point is obtained is below a threshold.

61. (previously presented): The device of claim 55, further comprising:

a calibration module configured to form a calibration set based at least in part on at least one matched data pair, the matched data pair comprising a reference data point and a sensor data point, wherein the reference data point and the sensor data point are obtained at substantially corresponding times; and

a calibration evaluation module configured to evaluate the matched pair, wherein the calibration evaluation module is configured to prevent the matched data pair from influencing the calibration set if the rate of change of the data stream at the time the sensor data point is obtained is above a threshold.

62. (previously presented): The device of claim 55, further comprising

a clinical module configured to compare a first reference data point to a second reference data point to determine whether the first reference data point is clinically acceptable,

wherein the second reference data point is obtained prior to obtaining the first reference data point, and

wherein the first reference data point is determined to be clinically acceptable if the difference between the first reference data point and the second reference data point is below a threshold.

63. (previously presented): The device of claim 55, further comprising

a clinical module configured to compare a first sensor data point to a second sensor data point to determine whether the first sensor data point is clinically acceptable,

wherein the second sensor data point is obtained prior to obtaining the first sensor data point, and

wherein the first sensor data point is determined to be clinically acceptable if the difference between the first sensor data point and the second sensor data point is below a threshold.

64. (previously presented): The device of claim 55, further comprising

a stability module configured to determine whether the sensor data is stable,

wherein the sensor data is determined to be stable if the rate of change of the data stream is below a threshold at the time the sensor data is obtained.

65. (previously presented): The device of claim 64, wherein the analyte comprises glucose, wherein the data stream comprises measurements indicative of in vivo glucose concentration, and wherein the threshold is set at a predetermined level.

66. (previously presented): The device of claim 64, wherein the analyte comprises glucose, wherein the data stream comprises measurements indicative of in vivo glucose concentration, and wherein the threshold is 0.25 mg/dL/min.

67. (previously presented): The device of claim 64, wherein the analyte comprises glucose, wherein the data stream comprises measurements indicative of in vivo glucose concentration, and wherein the threshold is 0.5 mg/dL/min.

68. (previously presented): The device of claim 64, wherein the analyte comprises glucose, wherein the data stream comprises measurements indicative of in vivo glucose concentration, and wherein the threshold is greater than 0.5 mg/dL/min.

69. (previously presented): The device of claim 55, further comprising a user interface, wherein the user interface is configured to request additional reference data when the rate of change of the data stream is below a predetermined threshold.

70. (previously presented): The device of claim 55, wherein the computer readable memory further comprises instructions configured to cause the processor to receive user information from an external source and process the user information received from the external source.

71. (previously presented): The device of claim 70, wherein the user information comprises information selected from the group consisting of mealtime information, exercise information, insulin administration, therapy recommendations and reference analyte values.

72. (previously presented): The device of claim 55,

wherein the computer readable memory further comprises instructions configured to detect at least one of present hypoglycemia, predicted hypoglycemia, present hyperglycemia and predicted hyperglycemia, wherein the instructions are configured to trigger an alarm or alert in response to the detection.

73. (previously presented): The device of claim 55,

wherein the integrated receiver comprises a user interface configured to display continuous glucose sensor data and single point glucose monitor data.

74. (previously presented): The device of claim 55, wherein the computer readable memory further comprises instructions configured to process and send data to an external device.

75. (previously presented): The device of claim 74, wherein the instructions configured to process and send data to an external device are configured to process and send at least one of an alert, a warning, and a message to a telecommunication device.

76. (previously presented): The device of claim 74, wherein the instructions configured to process and send data to an external device are configured to process and send a therapy recommendation to an insulin delivery device.

77. (previously presented): The device of claim 76, wherein the therapy recommendation comprise at least one of an amount insulin and a time for insulin delivery.

78. (previously presented): The device of claim 74, wherein the external device comprises at least one of a pacemaker, an infusion device, and a telemetry device.

79. (previously presented): The device of claim 55, wherein the computer readable memory further comprises instructions configured to receive and process a therapy recommendation from an external source.

80. (previously presented): The device of claim 55, wherein the computer readable memory further comprises instructions configured to receive and process software updates from an external source.

81. (previously presented): The device of claim 55, wherein the integrated receiver is adapted to fit on a belt.

82. (previously presented): The device of claim 55, wherein the integrated receiver is the size of a pager.

83. (previously presented): The device of claim 55, wherein the integrated receiver is a bedside unit.

84. (previously presented): The device of claim 55, wherein the integrated receiver comprises a cell phone.

85. (previously presented): A computer system suitable for processing analyte data, the computer system comprising:

a sensor data module configured to receive sensor data, the sensor data comprising a data stream comprising a plurality of time spaced sensor data points from a substantially continuous analyze sensor;

a reference input module configured to receive reference data from a reference analyte monitor, the reference data comprising at least one reference data point; and

a processor module configured to calibrate the data stream based at least in part on the at least one reference data point,

wherein the processor module is further configured to determine a rate of change of the calibrated data stream, and

wherein the processor module is further configured not to calibrate the data stream using reference data obtained during a time when the rate of change of the previously calibrated data stream is above a threshold.

86. (previously presented): The computer system of claim 85, wherein the processor module is further configured to determine a rate of change of the uncalibrated data stream, and wherein the reference input module is configured to reject a reference data point obtained when the rate of change of the uncalibrated data stream is above a threshold.

87. (previously presented): The computer system of claim 85, wherein the reference input module is configured to reject a reference data point obtained when the rate of change of the data stream is above a threshold.

88. (previously presented): The computer system of claim 85, further comprising a data matching module configured to match a reference data point to a sensor data point to form a matched data pair, wherein the reference data point and the sensor data point are obtained at substantially corresponding times, and wherein the rate of change of the data stream is below a threshold at the time the sensor data point is obtained.

89. (previously presented): The computer system of claim 85, further comprising a calibration module configured to form calibration information based at least in part on at least one reference data point and at least one sensor data point, wherein the reference data point and the sensor data point are obtained at substantially corresponding times, and wherein the rate of change of the data stream is below a threshold at the time the sensor data point is obtained.

90. (previously presented): The computer system of claim 85, further comprising a conversion function module configured to create a conversion function based at least in part on at least one sensor data point, wherein the sensor data point is obtained when the rate of change of the data stream is below a threshold, and wherein the conversion function is configured to convert the sensor data point into a calibrated data point.

91. (previously presented): The computer system of claim 85, further comprising a sensor data transformation module configured to convert at least one sensor data point into a calibrated data point, wherein the rate of change of the data stream at the time at which the sensor data point is obtained is below a threshold.

92. (previously presented): The computer system of claim 85, further comprising:

a calibration module configured to form a calibration set based at least in part on at least one matched data pair, the matched data pair comprising a reference data point and a sensor data point, wherein the reference data point and the sensor data point are obtained at substantially corresponding times; and

a calibration evaluation module configured to evaluate the matched pair, wherein the calibration evaluation module is configured to prevent the matched data pair from influencing the calibration set if the rate of change of the data stream at the time the sensor data point is obtained is above a threshold.

93. (previously presented): The computer system of claim 85, further comprising a clinical module configured to compare a first reference data point to a second reference data point to determine whether the first reference data point is clinically acceptable,

wherein the second reference data point is obtained prior to obtaining the first reference data point, and

wherein the first reference data point is determined to be clinically acceptable if the difference between the first reference data point and the second reference data point is below a threshold.

94. (previously presented): The computer system of claim 85, further comprising a clinical module configured to compare a first sensor data point to a second sensor data point to determine whether the first sensor data point is clinically acceptable,

wherein the second sensor data point is obtained prior to obtaining the first sensor data point, and

wherein the first sensor data point is determined to be clinically acceptable if the difference between the first sensor data point and the second sensor data point is below a threshold.

95. (previously presented): The computer system of claim 85, further comprising a stability module configured to determine whether the sensor data is stable, wherein the sensor data is determined to be stable if the rate of change of the data stream is below a threshold at the time the sensor data is obtained.

96. (previously presented): The computer system of claim 95, wherein the analyte comprises glucose, wherein the data stream comprises measurements indicative of in vivo glucose concentration, and wherein the threshold is set at a predetermined level.

97. (previously presented): The computer system of claim 96, wherein the analyte comprises glucose, wherein the data stream comprises measurements indicative of in vivo glucose concentration, and wherein the threshold is 0.25 mg/dL/min.

98. (previously presented): The computer system of claim 96, wherein the analyte comprises glucose, wherein the data stream comprises measurements indicative of in vivo glucose concentration, and wherein the threshold is 0.5 mg/dL/min.

99. (previously presented): The computer system of claim 96, wherein the analyte comprises glucose, wherein the data stream comprises measurements indicative of in vivo glucose concentration, and wherein the threshold is greater than 0.5 mg/dL/min.

100. (previously presented): The computer system of claim 85, further comprising a user interface, wherein the user interface is configured to request additional reference data when the rate of change of the data stream is below a threshold.

101. (previously presented): A computer system suitable for processing analyte data, the computer system comprising:

a sensor data module configured to receive sensor data indicative of analyte concentration, the sensor data comprising a data stream comprising a plurality of time spaced sensor data points from a substantially continuous analyte sensor; and

a processor module configured to calculate a rate of change value associated with a rate of change of the analyte concentration,

and wherein the processor module is further configured to substantially continuously display, on a user interface, a directional arrow representative of the calculated rate of change value.

102. (previously presented): The computer system of claim 101, wherein the processor module is further configured to trigger an alarm in response to detection of at least one of hypoglycemia, predicted hypoglycemia, present hyperglycemia and predicted hyperglycemia.

103. (previously presented): The computer system of claim 102, wherein the alarm comprises at least two of an audible alarm, a tactile alarm and a displayed alarm.

104. (previously presented): The computer system of claim 101, further comprising an input module configured to receive user information selected from the group consisting of mealtime information, exercise information, insulin administration, customized therapy recommendations and reference analyte values, wherein the processor module is further configured to display, on the user interface, the received user information.

105. (previously presented): The computer system of claim 101, further comprising a reference input module configured to receive reference data from a reference analyte monitor, the reference data comprising at least one reference data point, wherein the processor module is further configured to display, on the user interface, reference outlier values.

106. (previously presented): The computer system of claim 101, further comprising a reference input module configured to receive reference data from a reference analyte monitor, the reference data comprising at least one reference data point, wherein the processor module is further configured to request, on the user interface, reference analyte values.

107. (previously presented): The computer system of claim 101, wherein the processor module is further configured to display, on the user interface, a therapy recommendation.

108. (previously presented): The computer system of claim 101, wherein the processor module is further configured to output data to an external device.

109. (previously presented): The computer system of claim 108, wherein the data output comprises at least one of an alert, a message, and a warning, and wherein the external device comprises a telecommunications device.

110. (previously presented): The computer system of claim 108, wherein the data output comprises therapy recommendations, and wherein the external device comprises an insulin delivery device.

111. (previously presented): The computer system of claim 108, wherein the external device comprises at least one of a pacemaker, an infusion device, and a telemetry device.

112. (previously presented): The computer system of claim 101, wherein the processor module is further configured to receive and display a therapy recommendation from an external source.

113. (previously presented): The computer system of claim 101, wherein the processor module is further configured to receive and display a target analyte values from an external source.

114. (previously presented): The computer system of claim 101, wherein the processor module is further configured to receive and process software updates from an external source.

115. (previously presented): The computer system of claim 101, wherein the processor module is further configured to display, on the user interface, a plurality of activities from which a user can select his or her current activity.

116. (previously presented): The computer system of claim 101, wherein the processor module is further configured to display, on the user interface, one or more boundaries.

117. (previously presented): The computer system of claim 116, wherein the one or more boundaries comprise upper and lower boundaries.

118. (previously presented): The computer system of claim 117, wherein the upper and lower boundaries are user selectable.

119. (previously presented): The computer system of claim 117, wherein the upper and lower boundaries correspond to upper and lower thresholds associated with hypoglycemic and hyperglycemic alarms.

120. (previously presented): The computer system of claim 101, wherein the processor module is configured to display a graphical representation of analyte concentration over a time period.

121. (previously presented): The computer system of claim 120, wherein processor module is configured to display the graphical representation for a plurality of user selectable time periods.

122. (previously presented): A computer system suitable for processing analyte data, the computer system comprising:

a sensor data module configured to receive sensor data indicative of an analyte concentration, the sensor data comprising a data stream comprising a plurality of time spaced sensor data points from a substantially continuous analyte sensor; and

a processor module configured to determine a rate of change of the data stream,

and wherein the processor module is further configured to display, on a user interface, a numeric analyte concentration, an indication of rate of change of analyte concentration, and a graphical representation of analyte concentration over a period of time.

123. (previously presented): The computer system of claim 122, wherein the processor module is further configured to trigger an alarm in response to detection of at least one of hypoglycemia. predicted hypoglycemia, present hyperglycemia and predicted hyperglycemia.

124. (previously presented): The computer system of claim 123, wherein the alarm comprises at least two of an audible alarm, a tactile alarm and a displayed alarm.

125. (previously presented): The computer system of claim 122, further comprising an input module configured to receive user information selected from the group consisting of mealtime information, exercise information, insulin administration, customized therapy recommendations and reference analyte values, wherein the processor module is further configured to display, on the user interface, the received user information.

126. (previously presented): The computer system of claim 122, further comprising a reference input module configured to receive reference data from a reference analyte monitor, the reference data comprising at least one reference data point, wherein the processor module is further configured to display, on the user interface. reference outlier values.

127. (previously presented): The computer system of claim 122, further comprising a reference input module configured to receive reference data from a reference analyte monitor, the reference data comprising at least one reference data point, wherein the processor module is further configured to request, on the user interface, reference analyte values.

128. (previously presented): The computer system of claim 122, wherein the processor module is further configured to display, on the user interface, a therapy recommendation.

129. (previously presented): The computer system of claim 122, wherein the processor module is further configured to output data to an external device.

130. (previously presented): The computer system of claim 129, wherein the data output comprises at least one of an alert, a message, and a warning, and wherein the external device comprises a telecommunications device.

131. (previously presented): The computer system of claim 129, wherein the data output comprises therapy recommendations, and wherein the external device comprises an insulin delivery device.

132. (previously presented): The computer system of claim 129, wherein the external device comprises at least one of a pacemaker, an infusion device, and a telemetry device.

133. (previously presented): The computer system of claim 122, wherein the processor module is further configured to receive and display a therapy recommendation from an external source.

134. (previously presented): The computer system of claim 122, wherein the processor module is further configured to receive and display a target analyte values from an external source.

135. (previously presented): The computer system of claim 122, wherein the processor module is further configured to receive and software updates from an external source.

136. (previously presented): The computer system of claim 122, wherein the processor module is further configured to display, on the user interface, a plurality of activities from which a user can select his or her current activity.

137. (previously presented): The computer system of claim 122, wherein the processor module is further configured to display, on the user interface, one or more boundaries.

138. (previously presented): The computer system of claim 137, wherein the one or more boundaries comprise upper and lower boundaries.

139. (previously presented): The computer system of claim 138, wherein the upper and lower boundaries are user selectable.

140. (previously presented): The computer system of claim 138, wherein the upper and lower boundaries correspond to upper and lower thresholds associated with hypoglycemic and hyperglycemic alarms.

141. (previously presented): The computer system of claim 122, wherein the processor module is configured to display a graphical representation of analyte concentration over a time period.

142. (previously presented): The computer system of claim 141, wherein processor module is configured to display the graphical representation for a plurality of user selectable time periods.

143. (new): A device for monitoring glucose concentration in a biological sample of a host, the device comprising:

a substantially continuous glucose sensor that produces a data stream indicative of a glucose concentration in a host, the data stream comprising a plurality of time spaced sensor data points;

an integrated receiver that receives the data stream from the substantially continuous glucose sensor, wherein the integrated receiver comprises:

an in vitro single point glucose monitor configured to receive a biological sample from the host and to measure the concentration of glucose in the sample;

a processor; and

a computer readable memory comprising:

instructions configured to cause the processor to calibrate the data stream received from the continuous glucose sensor;

instructions configured to cause the processor to determine a rate of change of the calibrated data stream from the substantially continuous analyte sensor; and

instructions configured to cause the processor to not recalibrate and/or update calibration of the data stream using a glucose concentration measured by the single point glucose monitor when the rate of change of the calibrated data stream is outside a physiologically feasible limit.

144. (new): The device of claim 14, wherein the integrated receiver comprises a user interface, wherein the user interface is configured to request a biological sample for measurement via the single point glucose monitor only when the rate of change of the calibrated data stream is within a physiologically feasible range.

145. (new): The device of claim 143, wherein the physiologically feasible limit corresponds to a predetermined amount of change in the data stream over a predetermined amount of time.

146. (new): The device of claim 145, wherein the physiologically feasible limit is .25 mg/dL per minute.

147. (new): The device of claim 145, wherein the physiologically feasible limit is .5 mg/dL per minute.

148. (new): The device of claim 145, wherein the physiologically feasible limit is greater than .5 mg/dL per minute.